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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,154	03/24/2000	Eric Metois	SOL-148	1884

7590 04/27/2005

Barry R Lipsitz  
Law Offices Of Barry R Lipsitz  
755 Main Street Building 8  
Monroe, CT 06468

EXAMINER

SONG, HOSUK

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/535,154

Applicant(s)

METOIS ET AL.

Examiner

Hosuk Song

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 12-19, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 9-11, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Docketing***

1. Please note that the application has been docketed to a different examiner.

Please refer all future communications regarding this application to the examiner of record, using the information supplied in the final section of the office action.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4,7-8,12-14,18-19,22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Cox et al(US 6,154,571).

Claim 1: Cox discloses embedding a watermark with a degree of redundancy into the signal to form a steganographic signal in (fig.1). Cox disclose measuring a deterioration of the embedded watermark in the steganographic signal after the steganographic signal undergoes the processing and estimating the nature and or the amount of the processing based on the measured deterioration in (fig.3 and col.9,lines 50-63 and col.11,lines 18-42).

Claim 2: Cox disclose estimates an intrinsic fragility of the watermark by analyzing characteristics of the steganographic signal in (col.10,lines 21-58).

Claim 3: Cox disclose controlling an output of the steganographic signal when the amount of the estimated processing exceeds a threshold level, or the nature of the estimated processing is of a specified type in (col.10,lines 48-58).

Claim 4: Cox disclose the nature and or the amount of the estimated processing indicates whether the steganographic signal has undergone unauthorized processing in (col.9,lines 7-26).

Claim 7: Cox discloses perceptual compression and decompression in (col.4,lines 35-37).

Claim 8: Cox discloses deterioration of the embedded watermark is measured in accordance with a fragility profile of the embedded watermark in (col.8,lines 10-16;col.11,lines 30-45).

Claim 12: Cox discloses steganographic signal comprises at least one of audio and video content in (col.2,lines 19-28,53-58).

Claim 13: Cox disclose analyzing an intrinsic fragility of the signal, which is a carrier of the watermark layer and determining a fragility profile in response to analyzing step in (col.10,lines 21-58). Cox discloses wherein fragility profile is a model or a function that relates a degradation measure of the watermark layer to a degradation measure of the signal that carries the watermark in (col.10,lines 19-47).

Claim 14: Cox disclose subjecting the stenographic signal to at least one processing step and wherein the fragility profile denotes a deterioration of the embedded watermark layer due to at least one processing stage in (fig.3).

Claim 18: Cox disclose after the analyzing and determining steps, the signal ,and data designating the fragility profile are distributed to a decoder in (fig.10).

Claim 19: Cox discloses data designating the fragility profile is carried in the signal in (fig.3.).

Claim 22: Cox disclose embedding a watermark with a degree of redundancy into the signal to form a steganographic signal and measuring a deterioration of the embedded

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watermark in the steganographic signal after the stenographic signal undergoes the processing in (fig.1,3 and col.10,lines 19-47). Cox discloses estimating the nature and or the amount of the processing based on the measured deterioration in (fig.3 and col.9,lines 50-63 and col.11,lines 18-42).

Claim 23: Cox disclose analyzing an intrinsic fragility of the signal, which is a carrier of the watermark layer and determining a fragility profile in response to analyzing step in (col.10,lines 21-58). Cox discloses fragility profile is a model or a function that relates a degradation measure of the watermark layer to a degradation measure of the signal that carries the watermark in (col.10,lines 19-47).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al.(US 6,154,571) in view of Oami (US 6,665,419).

Claims 15-17: Cox does not specifically disclose intrinsic fragility analysis is applied to a cover portion of the signal before the signal is degraded by at least one processing step to indicate whether or not the watermark layer will survive the processing step. Oami disclose this limitation in (fig.8,#100,151 and col.7, table 6-8). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ intrinsic fragility analysis as

taught in Oami with watermark system of Cox in order to assure that watermark does not get distorted or damaged during /after the processing.

***Allowable Subject Matter***

4. Claims 5-6,9-11,20,21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Applicant's Arguments***

5. Claims 1-23 are pending. The previous grounds of rejection based on the Efron, Smith and Shimpkutu patents are withdrawn in view of Applicant's arguments in the Response After Final filed 4/4/2005. However, newly discovered prior art has necessitated new grounds of rejection. The new grounds of rejection are presented above. The delay in citation of the newly discovered prior art is regretted.

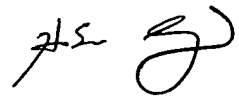
***USPTO Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosuk Song whose telephone number is 571-272-3857. The examiner can normally be reached on Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'HS' followed by a stylized flourish.

HS